

adsorbent means positioned within a fluidized bed for removing at least a portion of H_2S from a natural gas stream; and
means for providing the removed H_2S to the conversion means.--

--27. The apparatus of claim 26 wherein the adsorbent means includes a first adsorbent having a first predetermined temperature and second adsorbent having a second predetermined temperature.--

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--28. The apparatus of claim 27 wherein the first adsorbent and the second adsorbent are a molecular sieves.--

--29. The apparatus of claim 28 wherein the second predetermined temperature is greater than the first predetermined temperature.--

--30. A method for converting H_2S to elemental sulfur and hydrogen, the method comprising:
providing a nonthermal plasma corona reactor;
introducing the H_2S into the nonthermal plasma corona reactor; and
converting the H_2S to elemental sulfur and hydrogen at a predetermined temperature.--

--31. The method of claim 30 wherein the predetermined temperature is less than approximately four hundred (400°) degrees C.--

Respectfully submitted,

PRADEEP K. AGARWAL et al

By: 

Emery L. Tracy, Reg. No. 34,081

P.O. Box 1518

Boulder, Colorado 80306

Phone: (303) 443-1143 Fax: (303) 443-1415